

Three Bond 2273D

(One-Comp. Epoxy Resin for Induction bonding)

Three Bond 2273D is a heat curing, one-component epoxy resin without solvent. This resin is specially developed for the instant induction curing with HF-coils and can be excellently used for bonding and fixing materials such as ferrite and steel.

1. Features

- Extremely simple application by means of automatic dispensing systems as the product is one-component and free from solvents (no weighing, stirring, or mixing required).
- The fast curing of the resin allows considerable energy savings and facilitates the automation of assembly works thus enabling an integration of On-Line manufacturing processes without requiring manual works.
- As the resin contains more than 99 % of nonvolatile matters, there is only a minimal shrinkage and outgassing while curing.
- The cured resin excels in excellent electric properties as well as in a great solidity and very good chemical resistance.

2. Typical properties

Test Item	Result	Unit
Colour	White	
Viscosity at 25°C	73	Pa·s
Density at 25°C	1,15	g/cm ³
Curing time at 150°C (in oven)	30	Min.
Shore-Hardness	84 D	
Shear strength Fe/Fe	40	MPa
Peel strength Fe/Fe	6	kN/m
Glass transition temperature (DMA)	115,5	°C
Coefficient of thermal expansion α_1 α_2	66 x 10 ⁻⁶ 189 x 10 ⁻⁶	°C ⁻¹ °C ⁻¹
Water absorption (100°C x 1 h)	+ 1,9%	
Volume resistivity	9,6 x 10 ¹³	Ω ·m
Surface resistivity	6,9 x 10 ¹⁶	Ω
Dielectric constant at 1 MHz	4,1	
Dielectric dissipation factor at 1 MHz	0,025	
Breakdown voltage	20,3	kV/m
Shelf life at -5°C ~ 10°C	6	months

3. Handling

- Keep the epoxy resin tightly closed in the original container and store it in a dark, dry, sufficiently ventilated, and cool place at **-5°C ~ 10°C**.
- Before opening the container let the product reach room temperature as otherwise the formation of dew would be resulting.
- In order to obtain optimal results, remove humidity, fat and other impurities from the fitting surface.
- According to the nature of the joints (width, surface roughness, unevenness's) apply an appropriate quantity of epoxy resin uniformly on one of the fitting surfaces and join the parts immediately, position them correctly and fix them.
- The degree of curing varies depending on the thickness of the coating, the ambient temperature and the duration of the process.

- When a precision resin is used, changes in viscosity versus the ambient temperature are to be verified.
- Resin once transferred into another container should not be returned to the original container. Excess sealant can be easily wiped off with a cloth.

4. Packing

55cc, 310 ml cartridges and 1kg, 20 kg pail cans

All data given here were compiled to the best of our knowledge and are based on experiments and tests of our Company. We cannot guarantee the results obtained through the use of our products, and all products are sold and samples given without any warranty, expressed or implied, of fitness for any particular purpose or otherwise and upon condition that the user shall make his own tests to determine the suitability of the product for his purpose.